

FIG. 1  
PRIOR ART

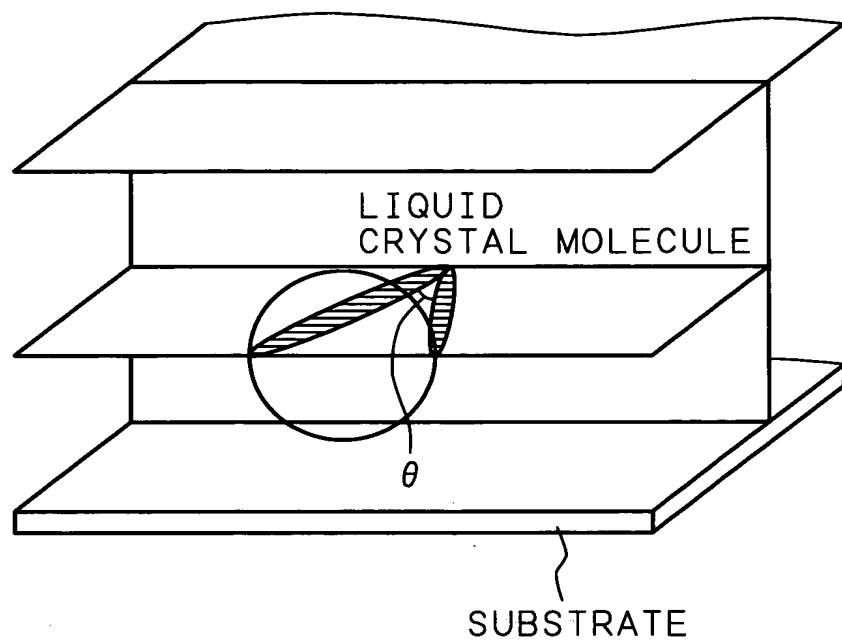


FIG. 2  
PRIOR ART

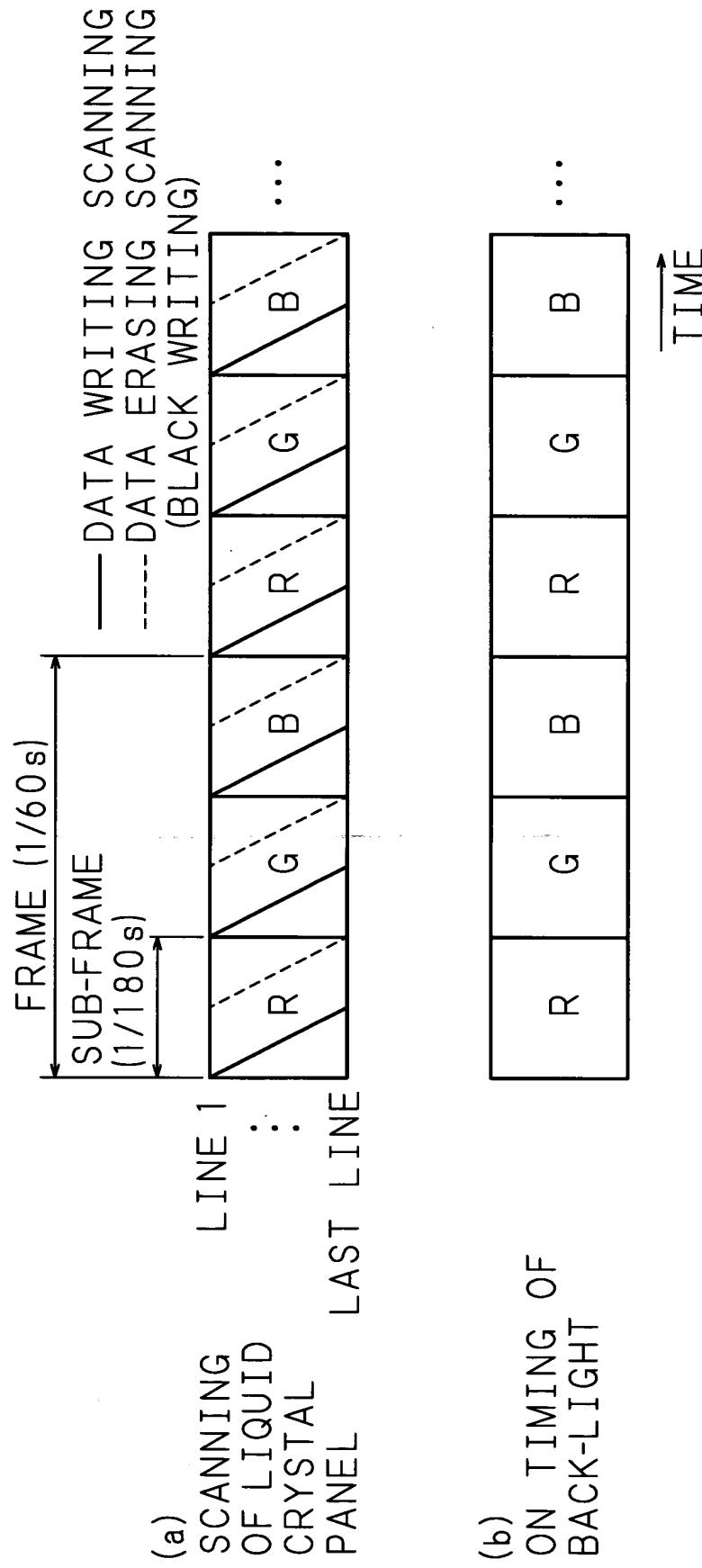
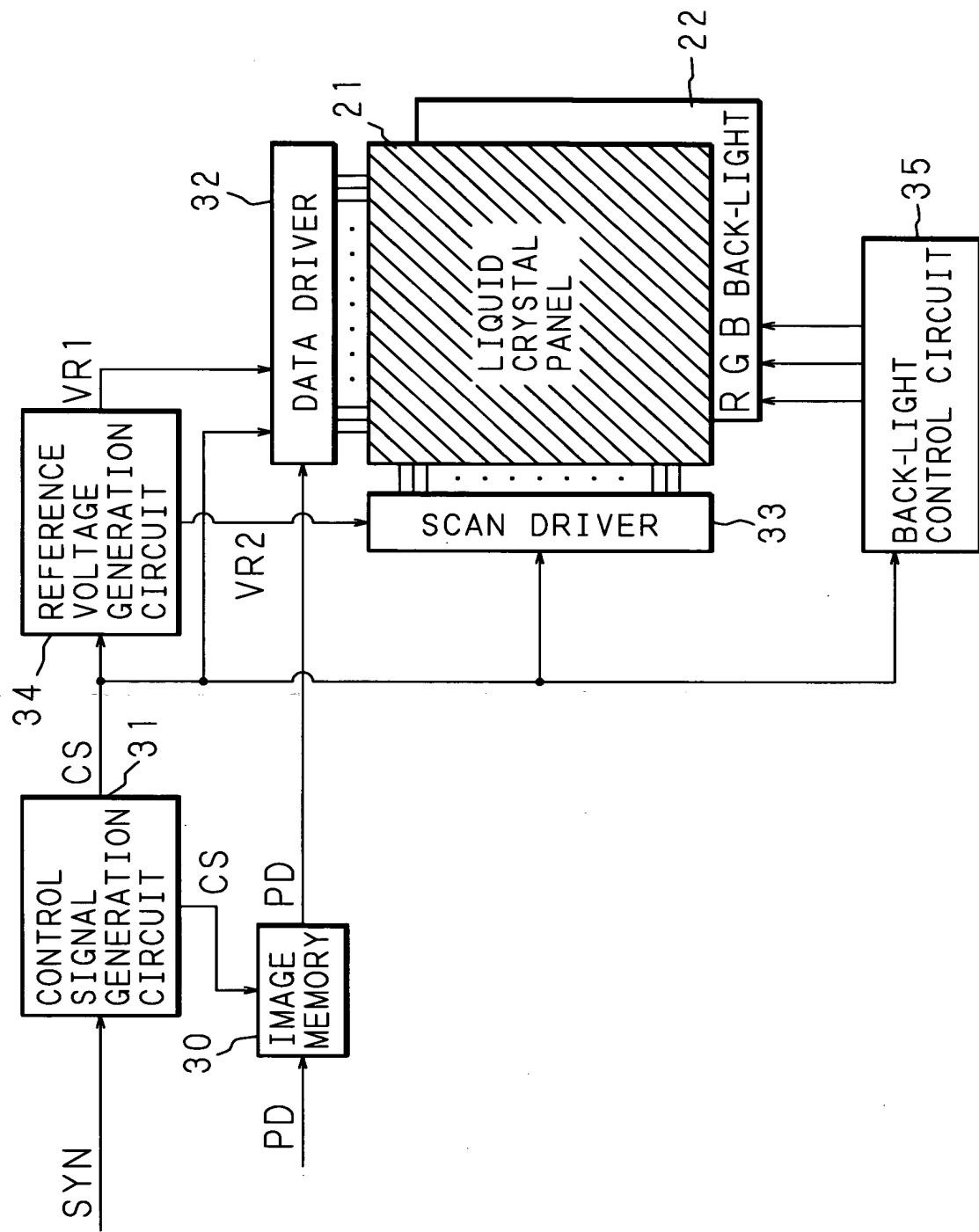


FIG. 3



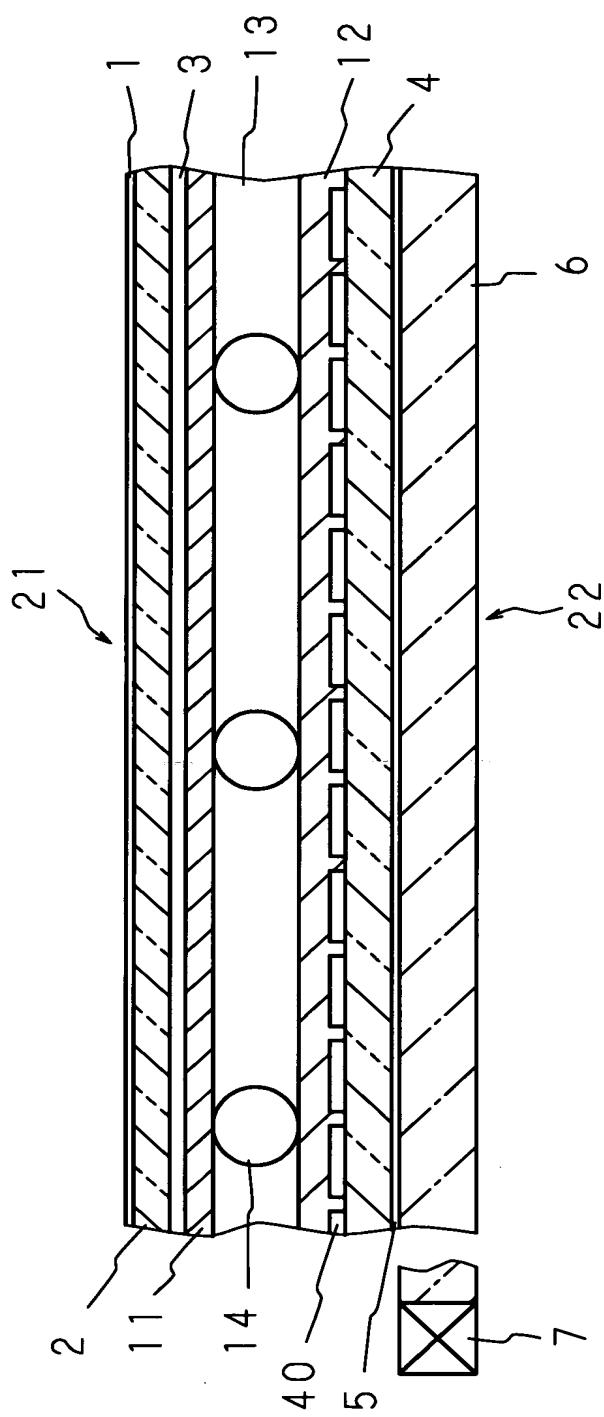


FIG. 4

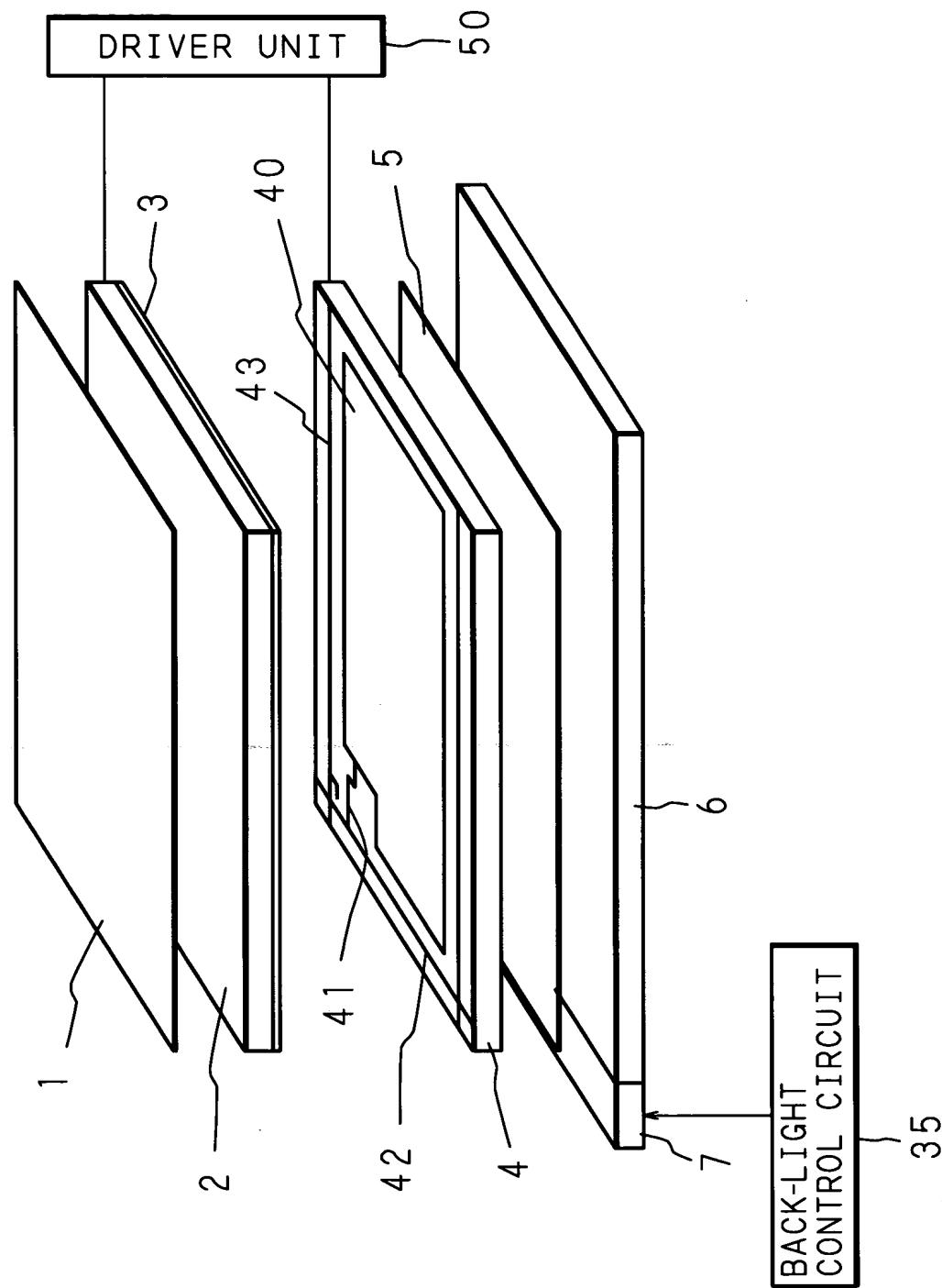
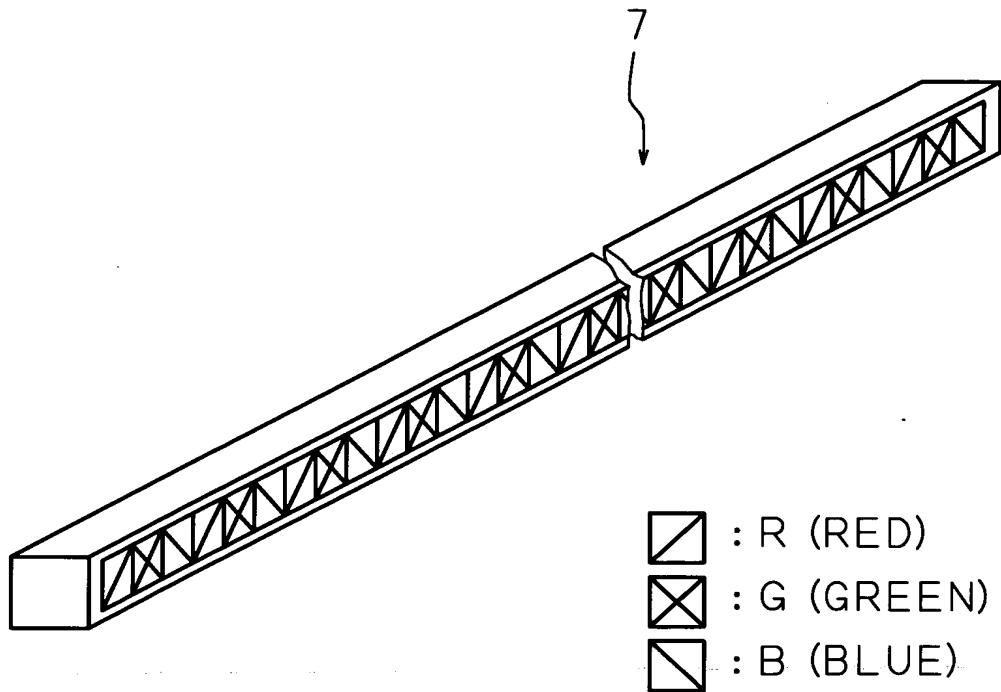


FIG. 5

F I G. 6



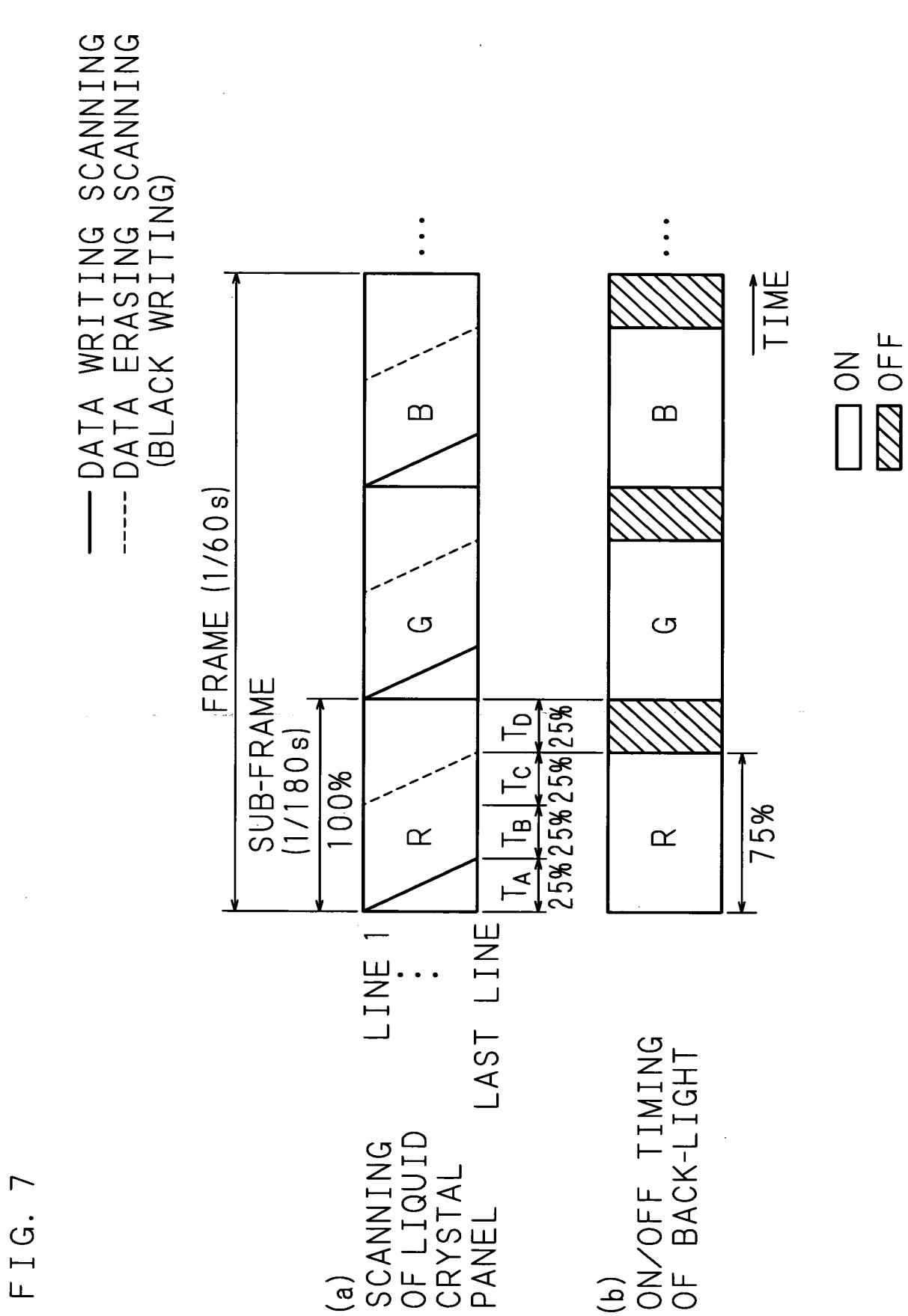


FIG. 8

— DATA WRITING SCANNING  
 - - - DATA ERASING SCANNING  
 (BLACK WRITING)

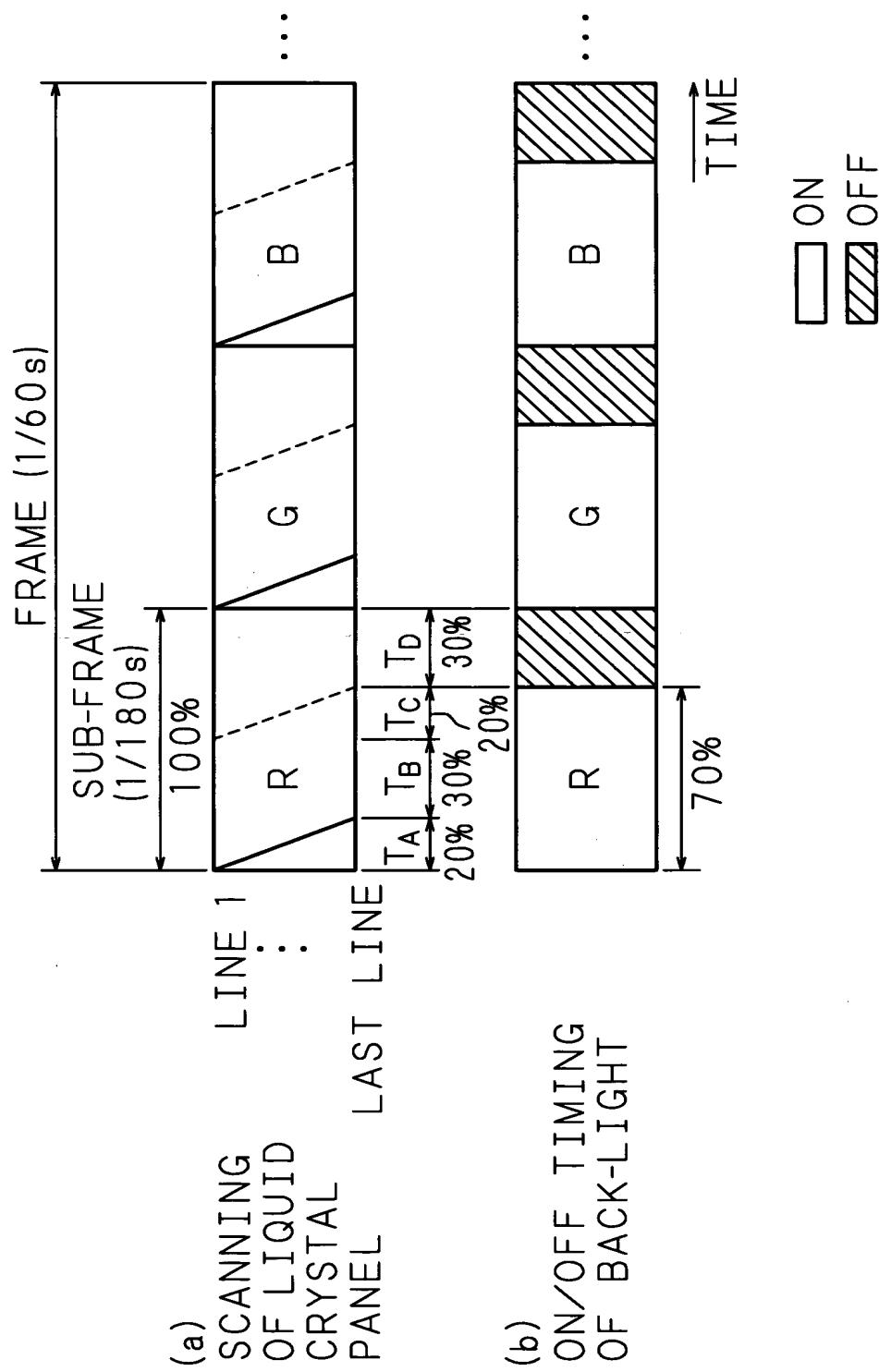


FIG. 9

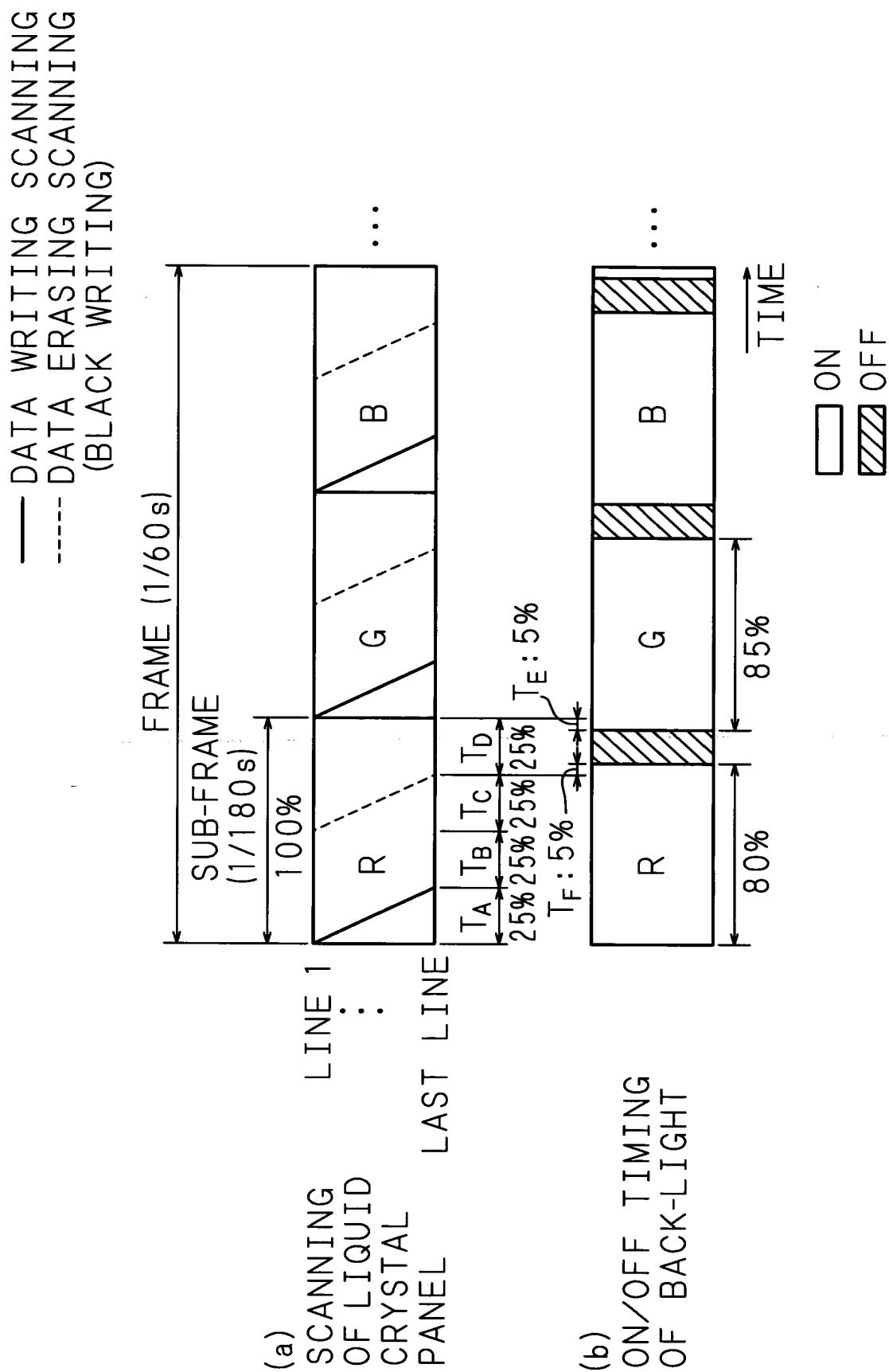


FIG. 10

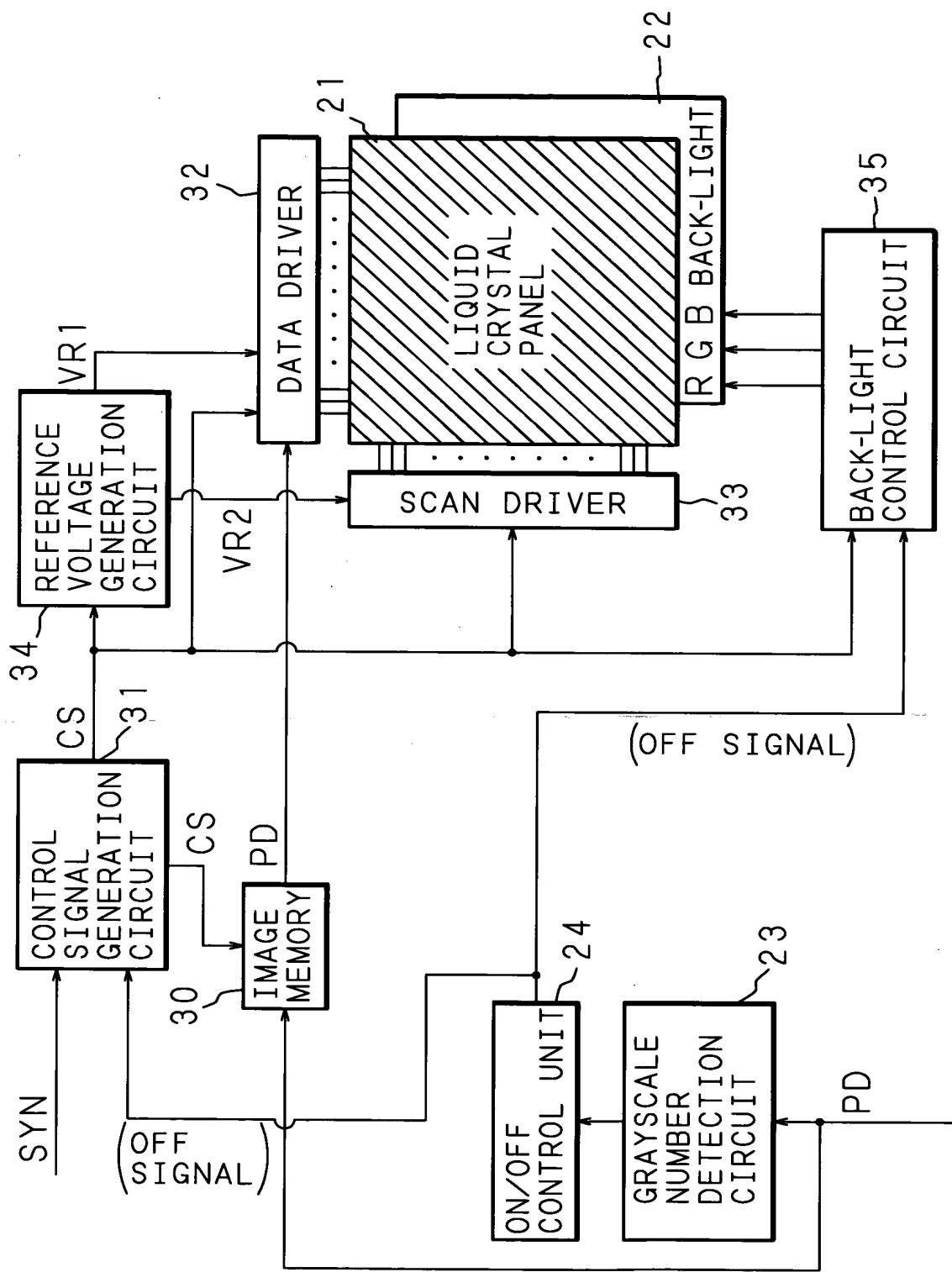


FIG. 11

— DATA WRITING SCANNING  
 - - - DATA ERASING SCANNING  
 (BLACK WRITING)

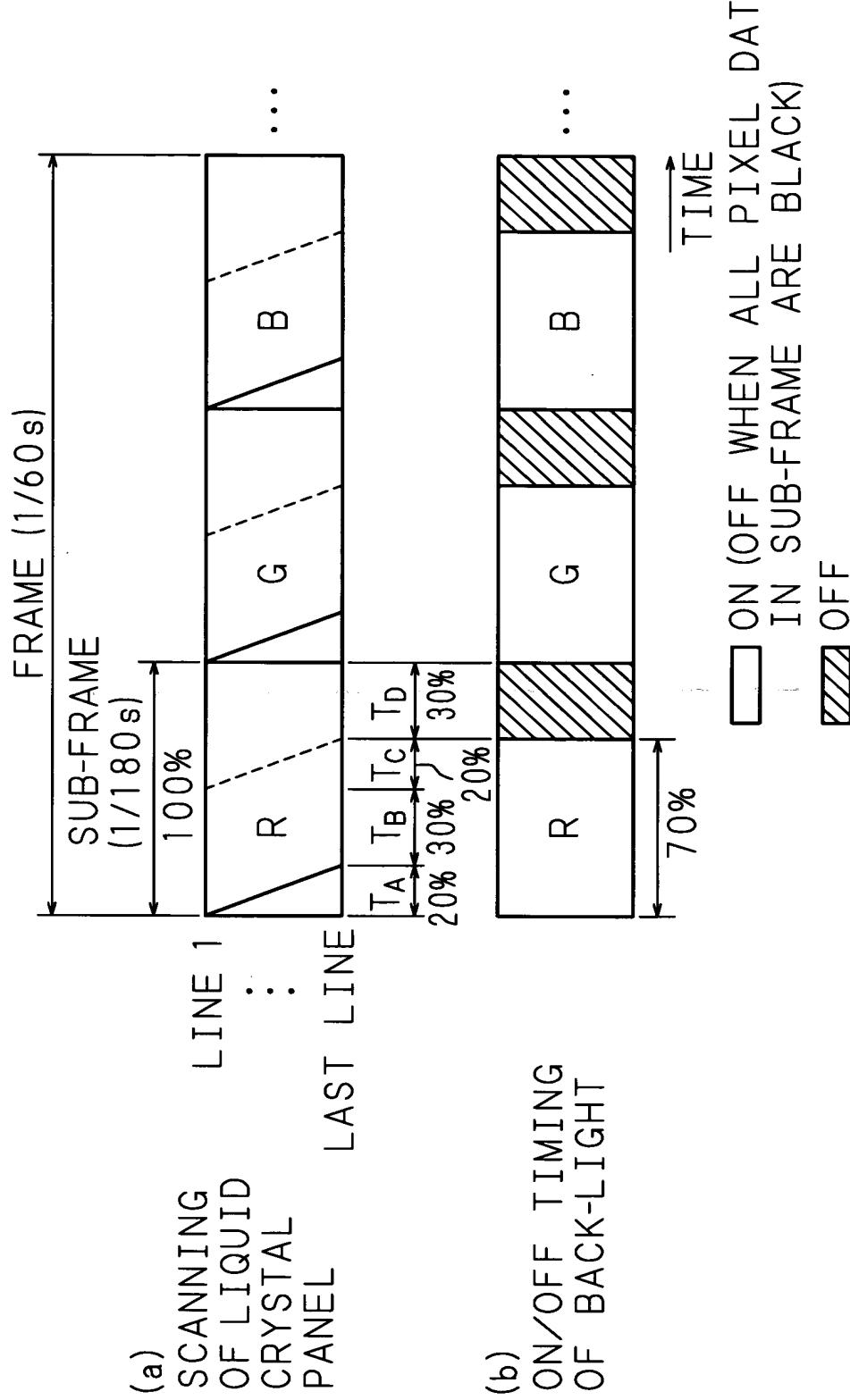


FIG. 12 A

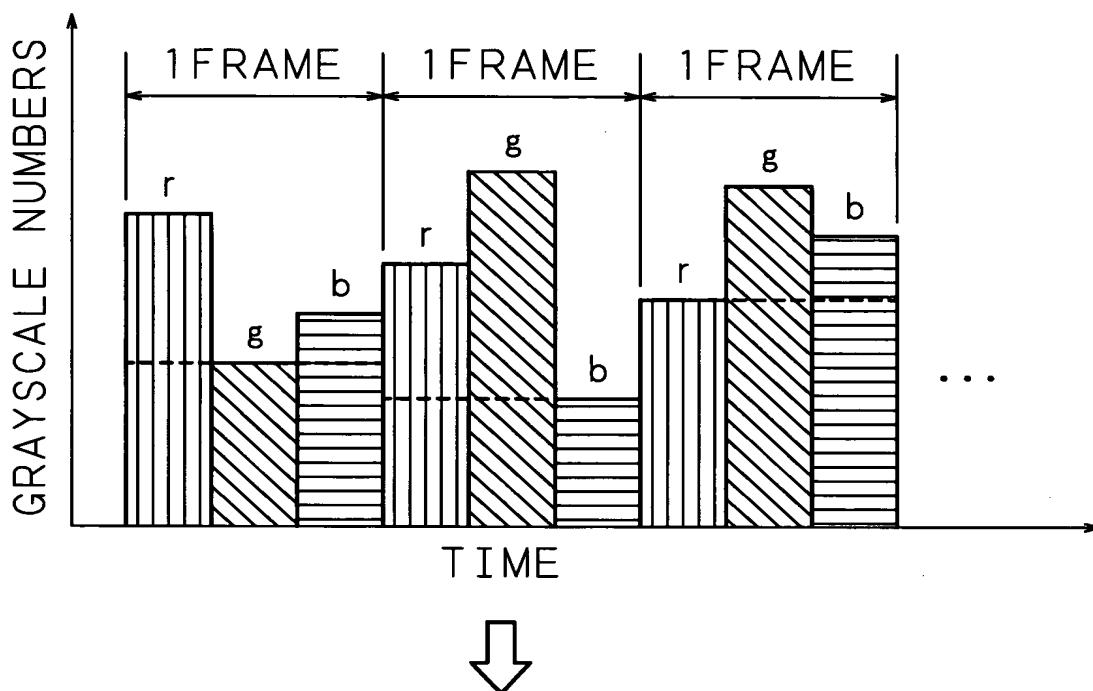


FIG. 12 B

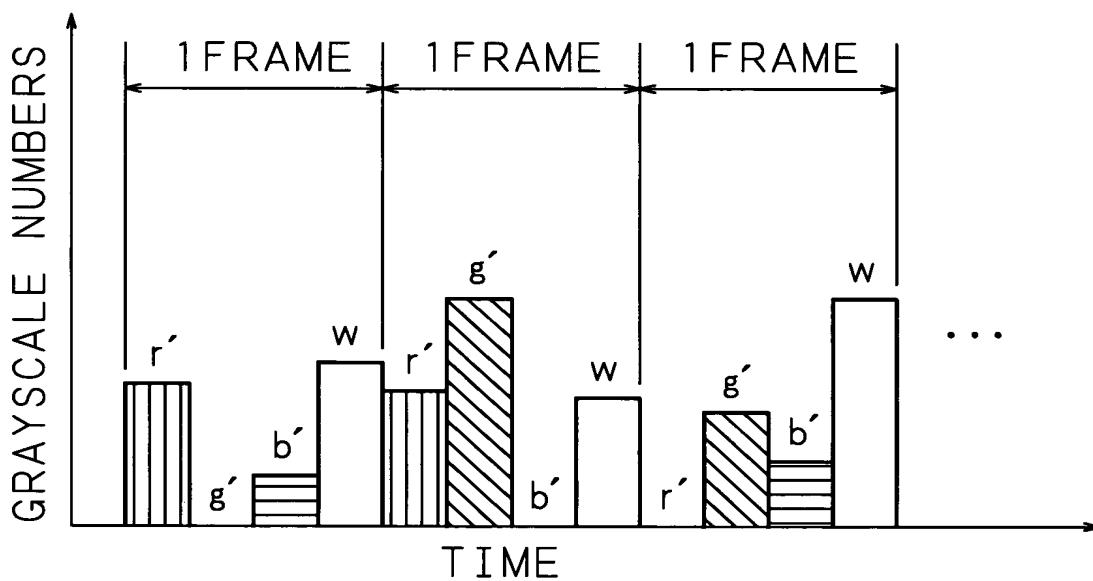


FIG. 13

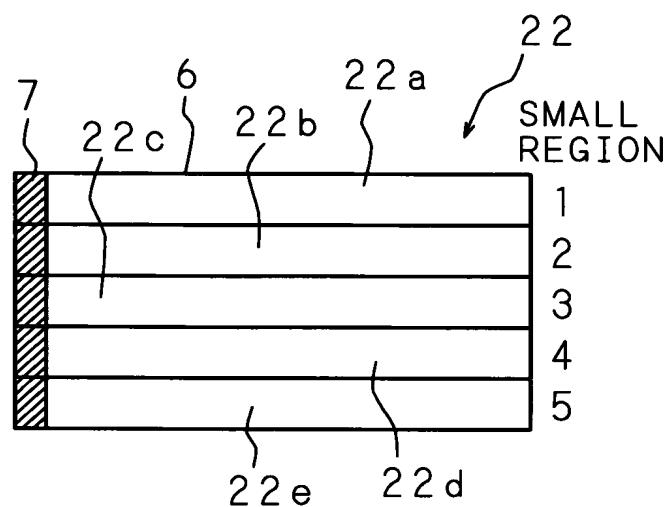
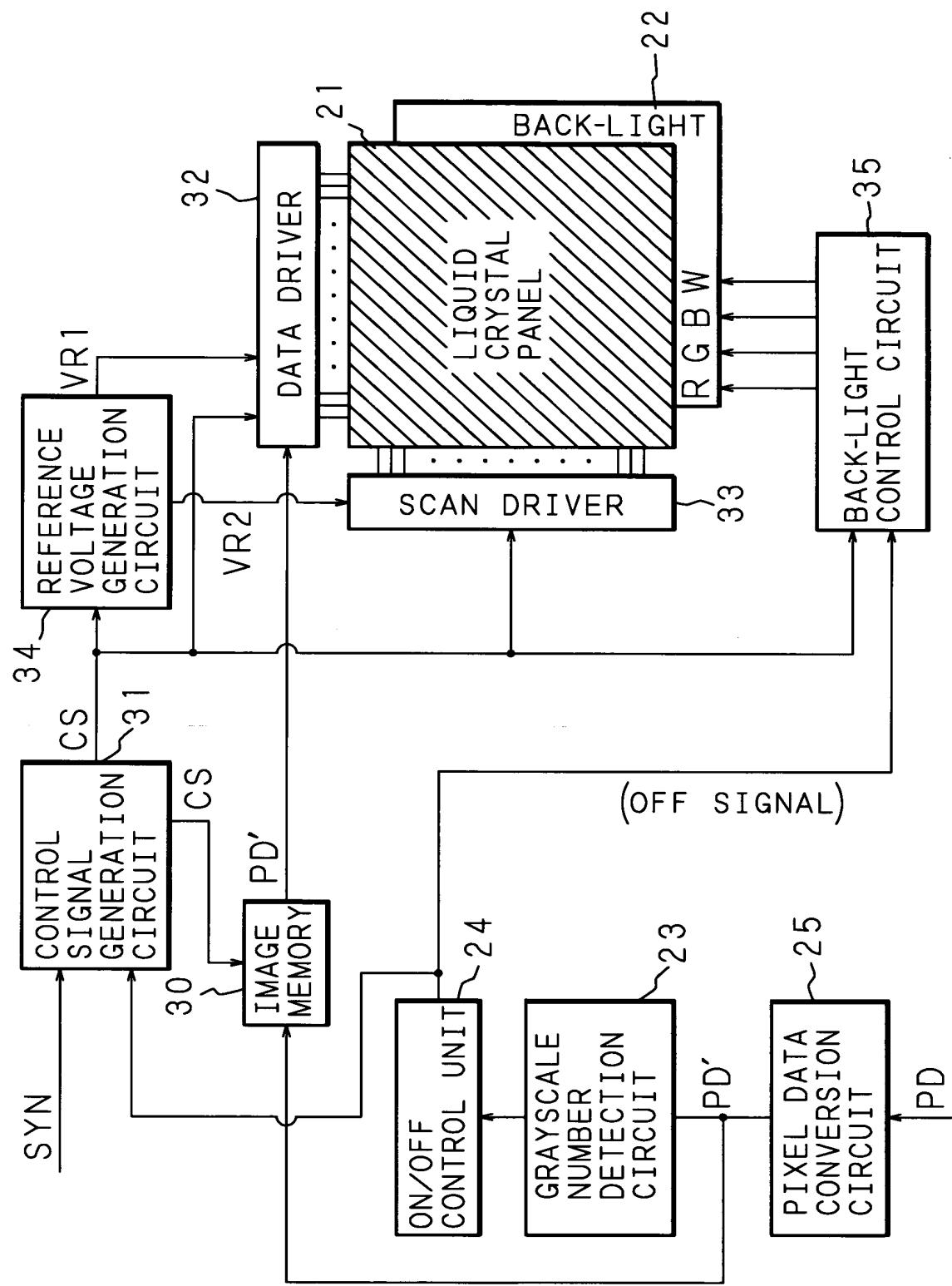


FIG. 14



**(a) SCANNING OF LIQUID CRYSTAL PANEL**

The diagram illustrates the scanning sequence across multiple lines. The vertical axis represents time, divided into a FRAME (1/60 s) and a SUB-FRAME (1/240 s). The horizontal axis represents the scanning lines, from LINE 1 to LAST LINE. The sequence consists of three main phases: DATA WRITING (solid line), DATA ERASING (dashed line), and BLACK WRITING (dotted line). The segments are labeled R, G, B, and W. The total duration of the sub-frame is 1/240 s, which is 100% of the frame period.

**(b) ON/OFF TIMING OF BACK-LIGHT**

This diagram shows the timing of the back-light for each sub-frame. The vertical axis represents the sub-frame period (1/240 s). The horizontal axis represents TIME. The back-light is turned ON (white box) for 70% of the sub-frame period and OFF (hatched box) for 30%. The sequence follows the same R, G, B, W pattern as the scanning diagram. The total duration of the sub-frame is 1/240 s, which is 70% of the frame period.

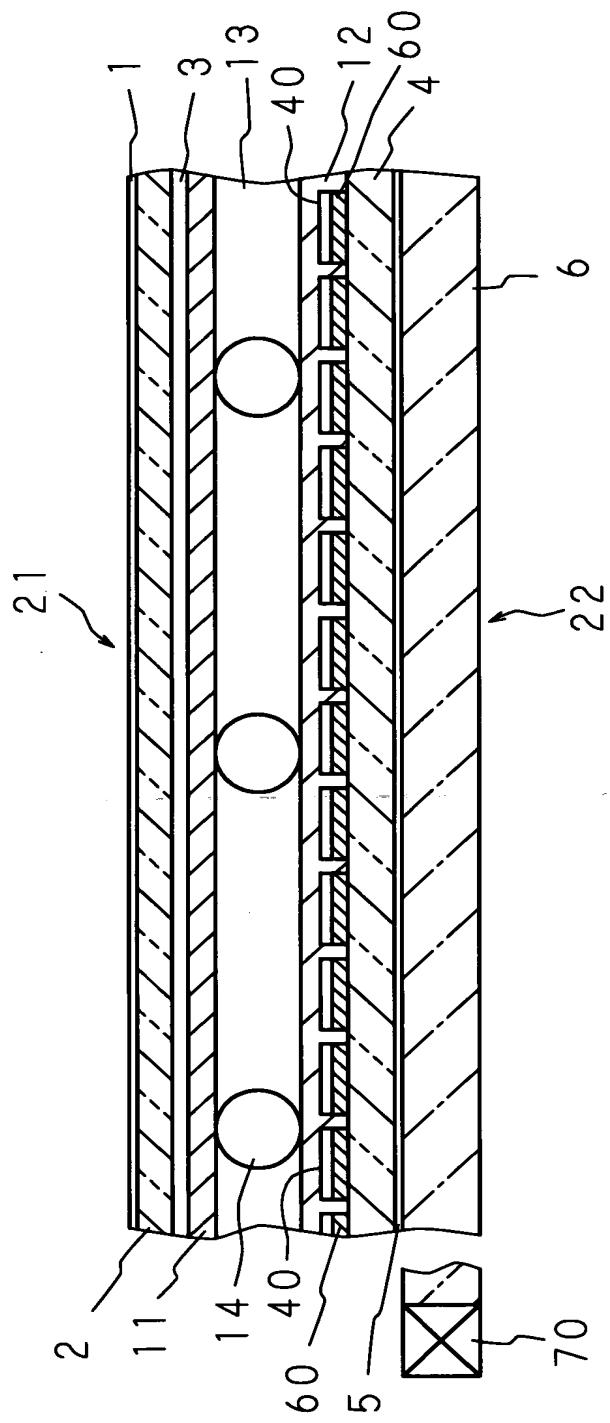


FIG. 16